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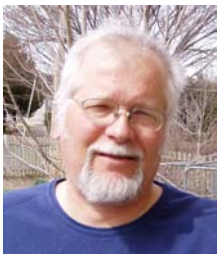

Jon Appel, Plant Pathologist

Plant Disease in Kansas

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HIGHLIGHTS

Wheat disease is up and running along with what appears to be a pretty good crop.

More pine wilt problems in south central Kansas. The disease hit hard and numerous Scotch pine trees were affected in Reno and Harvey counties.

Soybean rust over-wintered in the United States in Florida. The disease was found on the legume weed known as kudzu just north of Tampa Bay.

USDA launched a soybean rust website which will give producers up to date information on presence of the disease and other related information. Go to www.usda.gov/soybeanrust .

OUTLOOK

Leaf rust and other foliar diseases can be seen in the planted wheat. Moisture will allow those diseases to infect new growth. Early in the season, virus diseases such as wheat spindle streak and soil borne mosaic can be observed. Farmers that see off color wheat may want to examine the plants closer for virus or foliar diseases.

LANDSCAPE AND ORNAMENTALS

During the past few years, pine wilt disease of Scotch and to a lesser extent Austrian pines, has been very common in northeast Kansas. In addition to the northeast this year, some south central counties have been also hit hard by the

disease (J. Appel, KDA). The cities of Newton and Hutchinson in Harvey and Reno counties, respectively, have an epidemic of disease currently going on. Dead Scotch pine appear to everywhere as a result of infection in the fall of 2004 by the insect vectored nematode disease. Only an occasional tree was infected in the two south central counties a couple of years ago, but now it appears to be rampant.

SOYBEANS

Asian soybean rust was reported in late 2004 in the United States as a result of hurricane activity in the Gulf of Mexico in September. The storms carried spore clouds from South America northward into the Gulf States where the fungus infected soybeans and a related legume known as kudzu. The disease is potentially, the most important disease to production in the world.

The fungus which causes the disease on soybean has over-wintered on the kudzu host in Florida and likely will cause some infection of soybean in Florida this season. Whether the disease is able to reach other growing regions of the United States remains uncertain at this time.

In response to the increasing threat and the need to have timely information, a network of surveillance monitoring activities will be carried out by state and federal government agencies, Land Grant University and extension services, industry, and producers. Fungicides are about the only alternative to protect the crop when the disease is imminent. Interested parties may go to www.usda.gov/soybeanrust for the latest in disease surveillance and related information.

WHEAT

Wheat disease was found to be present across much of central Kansas during the past two weeks. Leaf rust, powdery mildew, and speckled leaf blotch were foliar diseases observed as viable in fields (J. Appel and Jim Stack, KSU). Soil borne and wheat spindle streak viruses, which have been low in incidence and of only minor importance to the past three wheat crops, also are present and likely will be a factor in production in 2005.

The rust situation is alarming because the disease not only over-wintered in Kansas but is epidemic in states to the south of Kansas, notably Texas and Louisiana. The inoculum potential from these states could be described as hazardous for Kansas production. Historically, southern winds carry spore clouds into Kansas and responsible for much of the disease distribution and primary inoculum. The amount of leaf rust in those southern states has been characterized as heavy and ahead of normal development for this time of the

year. Although leaf rust is the primary concern, stripe rust is also active in those states but to a lesser extent.

The area of the state south of a line from Salina and McPherson in central Kansas west to LaCrosse then to Dodge City was found to have leaf rust. It is likely that other areas of the state, especially in the south, may have some degree of leaf rust infection at this time. Incidences were trace to one or two per cent with only a few pustules per plant. About one out of four fields had leaf rust and ants were beginning to joint in southern fields. This current level of disease is dramatically less than levels found this fall which growers were alarmed about. There was no damage to the crop from the fall infections.

Speckled leaf blotch (Figure 1.) was the most prevalent disease in survey of the planted wheat. The disease, which can be diagnosed by brown spots with black pycnidia, was present in almost every field visited in central Kansas and occasionally in western counties.

The disease level reported was not uncommon for this time of the year. For the disease to affect yields, it will require wet cool weather later in April and May when the flag leaf emerges and heading.

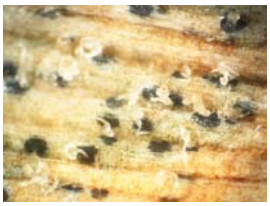

Figure 1. Pycnidia of SLB Sporulating.

Symptoms of viral disease were beginning to be appearing in wheat fields. Symptoms of soil borne were typical with yellow areas in low lying areas and leaves exhibited the "green island" effect (Fig. 2) that is often used to describe symptoms.

Fig. 2. Green island symptoms of Soil borne mosaic.

Spindle streak symptoms were also reported in an occasional field in central Kansas (J. Stack). Symptoms of plants were yellow light discrete dashes in the green leaf.